

5.5 40th Street and Sheridan Boulevard

BEFORE

ADT: 22,650 veh/day (2002)

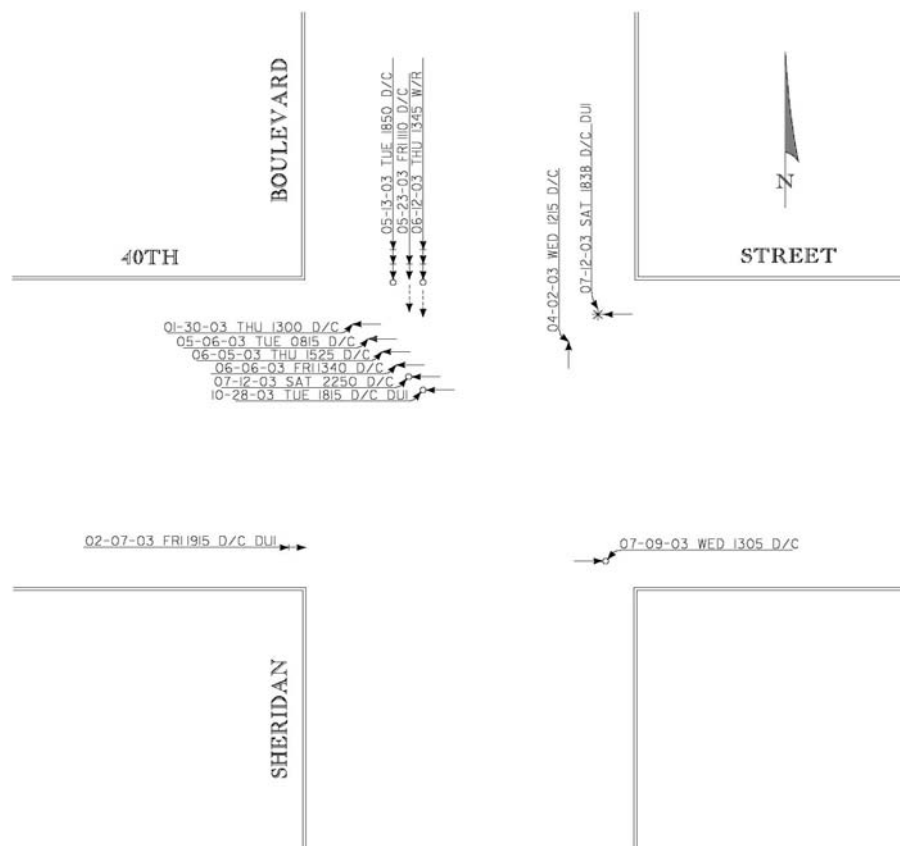
Time Period:

2003

Traffic Control: Actuated Coordinated Signal

Crash Pattern:

EB Left Turns



Total Crashes in Before Period: 13



40th Street and Sheridan Boulevard - Westbound Approach (Before)

5.5 40th Street and Sheridan Boulevard

AFTER

Countermeasures: Removed Traffic Signal and Constructed Roundabout

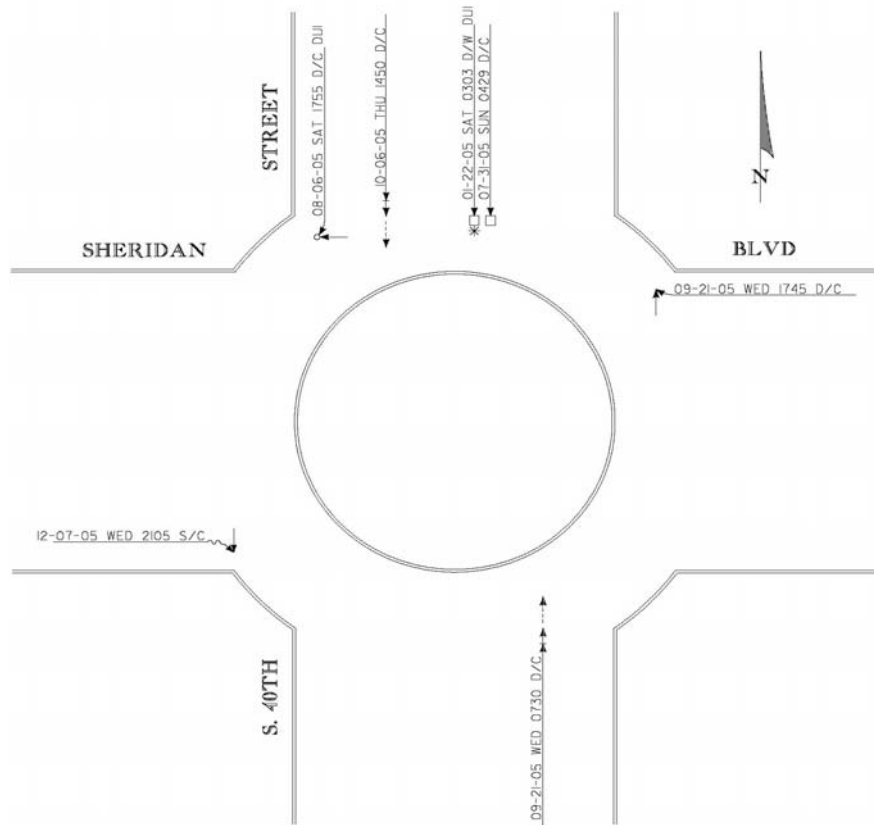
Time Period:

2005

Improvement Completion Date: August, 2004

Speed Limits:

NS Arterial- 35 mph
EW Arterial- 35 mph



Total Crashes in After Period: 7



40th Street and Sheridan Boulevard - Westbound Approach (After)

5.5 40th Street and Sheridan Boulevard

COMPARISON

Countermeasures:

Removed Traffic Signal and Constructed Roundabout

Improvement Completion Date:

August, 2004

	Before	After	Change
Analysis Period	2003	2005	-
Primary Crash Benefit			
Total Number of Correctable Crashes	9	3	-67%
All Other Intersection Crashes	4	4	0%
Intersection Crash Experience			
Injury + Fatal Crashes	5	1	-80%
Property Damage-Only Crashes	7	5	-29%
Non-Reportable Crashes	1	1	0%
<i>Total Number of Intersection Crashes</i>	<i>13</i>	<i>7</i>	<i>-46%</i>
Total Intersection Benefit			
Crash Rate	1.57	0.85	-46%
EPDO Rate	6.59	1.86	-72%
EPDO Number*	54.46	15.34	-39.12

Cost of Property Damage Crash: \$ 8,200
 Total Benefit (12 months): \$ 320,784
 Equivalent Uniform Annual Benefit (EUAB): \$ 411,775

Total Cost of Improvements:

Equivalent Uniform Annual Cost (EUAC): \$ 26,325
 Initial Cost: \$ 301,930

Benefit-Cost Ratio: $\frac{\$ 411,775}{\$ 26,325} = 15.6$

Net Benefit (Present Worth): \$ 411,775 - \$26,325 = \$385,450

**Change NOT Statistically Significant at 95% Confidence Interval*

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